

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

HEADWATER RESEARCH LLC, §
§
Plaintiff, §
v. §
§
VERIZON COMMUNICATIONS INC., § Case No. 2:23-cv-00352-JRG-RSP
CELLCO PARTNERSHIP d/b/a VERIZON §
WIRELESS, and VERIZON CORPORATE §
SERVICES GROUP, INC., §
§
Defendants. §

REPORT AND RECOMMENDATION

Before the Court is the Motion for Summary Judgment on the Pleadings Under Rule 12(c) that the Asserted Claims Are Invalid Under 35 U.S.C. § 101, filed by Defendants Verizon Communications Inc., Cellco Partnership d/b/a Verizon Wireless, and Verizon Corporate Services Group, Inc.. **Dkt. No. 190.** For the reasons discussed below, the Motion should be **DENIED**.

I. BACKGROUND

On July 28, 2023 Plaintiff Headwater Research LLC filed suit against Defendants, asserting that they infringe four of its patents: U.S. Patent Nos. 8,589,541; 8,924,543; 9,198,042; and 9,215,613. Dkt. No.1 at 1. On January 29, 2025, the Parties agreed to dismiss the '543 Patent. Dkt. No. 144. On April 3, 2025, Plaintiff filed the instant Motion, alleging that all asserted claims of the '541 and '613 Patents are invalid as being directed to an abstract idea and lacking an inventive concept. *See generally* Dkt. No. 190.

II. APPLICABLE LAW

A. Summary Judgment

Summary judgment should be granted “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P.

56(a). Any evidence must be viewed in the light most favorable to the nonmovant. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986) (citing *Adickes v. S.H. Kress & Co.*, 398 U.S. 144, 158–59 (1970)). Summary judgment is proper when there is no genuine dispute of material fact. *Celotex v. Catrett*, 477 U.S. 317, 322 (1986). “By its very terms, this standard provides that the mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no *genuine* [dispute] of material fact.” *Anderson*, 477 U.S. at 247–48 (emphasis added). The substantive law identifies the material facts, and disputes over facts that are irrelevant or unnecessary will not defeat a motion for summary judgment. *Id.* at 248. A dispute about a material fact is “genuine” when the evidence is “such that a reasonable jury could return a verdict for the nonmoving party.” *Id.*

The moving party must identify the basis for granting summary judgment and evidence demonstrating the absence of a genuine dispute of material fact. *Celotex*, 477 U.S. at 323. If the movant bears the burden of proof on an issue at trial, then the movant “must establish beyond peradventure all of the essential elements of the claim or defense to warrant [summary] judgment in his favor.” *Fontenot v. Upjohn Co.*, 780 F.2d 1190, 1194 (5th Cir. 1986).

B. Subject Matter Eligibility

Anyone who “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” may obtain a patent. 35 U.S.C. § 101. Since patent protection does not extend to claims that monopolize the “building blocks of human ingenuity,” claims directed to laws of nature, natural phenomena, and abstract ideas are not patent eligible. *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014). The Supreme Court

therefore instructs courts to distinguish between claims that set forth patent ineligible subject matter and those that “integrate the building blocks into something more.” *Id.* at 217.

Courts use a two-step framework for analyzing whether claims at issue claim patent-eligible subject matter. *Id.* at 217–18; *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). First, courts “determine whether the claims at issue are directed to a patent-ineligible concept.” *Id.* (quoting *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77–78 (2012))). In doing so, the court must be wary not to over generalize the invention, as “all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 71) (ellipsis in *Alice*).

“If this threshold determination is met, [courts] move to the second step of the inquiry and ‘consider the elements of each claim, both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application.’” *Enfish*, 822 F.3d at 1334 (quoting *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79)). A claimed invention is patent-eligible at *Alice* Step Two when the claim limitations “involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Alice*, 573 U.S. at 225) (quoting *Mayo*, 566 U.S. at 73 (internal quotation marks and brackets omitted)).

Patent eligibility is a question of law, based on underlying facts. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018), *cert. denied*, 139 S. Ct. 2747 (2019), *reh’g denied*, No. 18-1199, 2019 WL 3976449 (Aug. 23, 2019). Whether the claim elements or combination are

well-understood, routine, and conventional is a question of fact. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018).

III. ANALYSIS

Defendants move for summary judgment that all asserted claims of the '541 and the '613 Patents are invalid for being directed to ineligible subject matter under 35 U.S.C. § 101. *See generally* Dkt. No. 190. As a preliminary matter, Defendants bear the burden of proving an invalidity defense. This is because all issued patents are presumed valid, and it is the burden of the party asserting invalidity to establish such invalidity. 35 U.S.C. § 282(a). Accordingly, Defendants must show all essential elements on the issue here to warrant summary judgment in their favor.

A. The '541 Patent

In the Motion, Defendants assert that claims 79 and 83 of the '541 Patent are invalid for being directed to the abstract idea of selectively managing communications by (1) determining a user-configurable policy to apply to communications, (2) assessing the communication, and (3) applying the appropriate policy to the communication. Dkt. No. 190 at 1, 5. Claims 79 and 83 are dependent claims that depend from independent claim 1. '541 Patent at claim 79, claim 83.

Independent claim 1 of the '541 Patent recites:

1. A non-transitory computer-readable storage medium storing machine-executable instructions that, when executed by one or more processors of a wireless end-user device, cause the one or more processors to:

identify a service usage activity of the wireless end-user device, the service usage activity being associated with a first software component of a plurality of software components on the wireless end-user device, the service usage activity comprising one or more prospective or successful communications over a wireless network;

determine whether the service usage activity comprises a background activity;

determine at least an aspect of a policy based on a user input obtained through a user interface

of the wireless end-user device or based on information from a network element, the policy to be applied if the service usage activity is the background activity, the policy at least for controlling the service usage activity; and

if it is determined that the service usage activity is the background activity, apply the policy.

'541 Patent at claim 1.

1. *Alice* Step 1

Defendants contend that the '541 Patent embodies an abstract idea because it is “directed to a simple selective action that can be performed by a human: assessing whether a communication is in the background, determining a policy, based in part on user input, to apply to the background communication, and applying the policy to control the background communication.” Dkt. No. 190 at 6. Defendants analogize this to

an assistant [] manag[ing] messages for an employer that the employer is not aware of (i.e., messages in the “background”). Background messages include, for example, a spam marketing email or a colleague dropping a request off for the employer at the assistant’s desk without first notifying the employer. A policy can be put in place for the assistant to manage such background messages, based in part on the employer’s input.

Id. at 6-7. They assert that this recites nothing more than a means for controlling access to resources, and that is a human process made no less abstract by the claims applying the concept to a generic computer. *See id.* at 7.

Defendants further argue that the “Asserted Claims do not improve computer technology, but merely combine the abstract idea with ‘conventional computer activities’—and as such, cannot be patented.” *Id.* at 8 (citing *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015)). In support of this, Defendants cite to *Ericsson Inc. v. TCL Commc’n Tech. Holdings Ltd.*, in which the Federal Circuit found that the claims at issue there were directed to “controlling access to resources in a telecommunications system” and that this was “exactly the sort of process that can be performed in the human mind, or by a human using a pen and paper, which we have

repeatedly found unpatentable.” *Id.* at 9 (citing *Ericsson Inc. v. TCL Commc'n Tech. Holdings Ltd.*, 955 F.3d 1317, 1326-27 (Fed. Cir. 2020) (internal citations and quotations omitted)). The Federal Circuit clarified that this was because the claims made only “generic functional recitations,” were silent to technical improvements that address “how access is controlled,” and made no mention of a “resource constrained” network environment. *Ericsson*, 955 F.3d at 1328 (internal citations and quotations omitted).

Plaintiff counters Defendant’s arguments by asserting that the claims focus on solutions specific to wireless end-user devices and wireless network problems—namely, “moving network service controls away from ‘purely centralized network solutions with no assistance from a device based software agent’ in favor of ‘controlling network service usage activities at the source of the demand—the device.’” Dkt. No. 217 at 10-11 (quoting ’541 Patent at 15: 56-58, 16: 7-8). Plaintiff states that this is accomplished by using “Device Assisted Services (DAS) for protecting network capacity that are stored and executed on the wireless end-user device itself” and that “[t]his avoids limitations with network-centric approaches and allow[s] the device to determine whether certain service usage activity is wasteful (e.g., as background activities and depending on the device’s policy) and control them accordingly.” *Id.* at 11. Plaintiff claims that this was an advance over the prior device-centric art because previously it involved “inefficient repetitive signaling designed to ‘sav[e] device resources [] rather than network resources,’” whereas the ’541 Patent provided solutions that benefit both. *Id.* (quoting ’541 Patent at 15: 46-47).

Plaintiff contends that a specific permutation of these solutions is captured in claim 1 and constitutes “controlling background activity communications at the application / application level of the device *before* the communications reach the wireless network.” *Id.* at 11-12 (citing ’541 Patent at claim 1). Plaintiff further contends that other permutations are captured by the asserted

claims 79 and 83 which constitute network controls “‘intercepting’ a stack API level, an application messaging layer request, or an application interface message.” *Id.* at 12 (citing ’541 Patent at claims 79, 83).

The Court finds that Defendants misapprehend the ’541 Patent. As seen from the claim language on pages 4 and 5 above, and confirmed by the ’541 Patent’s specification, claim 1 is concerned with an *end-user device and network* method for reducing network congestion while reducing end-user device resource consumption. The Court finds that this is not directed to an abstract idea, but instead—as Plaintiff asserts—is an improvement to a specific network technology. Such improvements to technology itself, rather than mere computerization of a commonplace human activity, are patentable. *See McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016).

Defendants’ arguments to the contrary are unpersuasive. As stated above, the Federal Circuit clarified claims directed to controlling access to resources in telecommunications systems are unpatentable if they make only generic functional recitations, are silent to technical improvements that address how access is controlled, and make no mention of a resource constrained network environment. *Ericsson*, 955 F.3d at 1328. Here, by contrast, the ’541 Patent makes (1) specific functional recitations (*see e.g.* ’541 Patent at claim 79 (“The non-transitory computer-readable storage medium recited in claim 1, wherein apply the policy comprises at least assist in intercepting a stack application programming interface (API) level or application messaging layer request.”) (emphasis added)); (2) explains how to facilitate the asserted improvements (*See e.g. id.* at 91:41-49 (“before a connection is allowed to be opened (e.g., before a socket is opened), transmission, or a flow/stream is initiated, it is blocked and a message is sent back to the application”)); and (3) did so in addressing the problem of resources being constrained

on a network (*See e.g. id.* at 7: 34-49 (“With the advent of mass market digital communications, applications and content distribution, many access networks such as wireless networks, cable networks and Digital Subscriber Line (DSL) networks are pressed for user capacity, with, for example Evolution-Data Optimized (EVDO), High Speed Packet Access (HSPA), Long Term Evolution (LTE), Worldwide Interoperability for Microwave Access (WiMax), DOCSIS, DSL, and Wireless Fidelity (Wi-Fi) becoming user capacity *constrained*. In the wireless case, although network capacity will increase with new higher capacity wireless radio access technologies, such as Multiple-Input Multiple-Output (MIMO), and with more frequency spectrum and cell splitting being deployed in the future, these capacity gains are likely to be less than what is required to meet growing digital networking demand.”) (emphasis added)).¹

These types of specific solutions to network problems, captured in specific steps, are not abstract concepts. *See generally McRO*, 837 F.3d 1299. Accordingly, the Court finds that claims 79 and 83 of the ’541 Patent are not directed to an abstract idea.

2. *Alice* Step 2

Because the Court finds that the ’541 Patent’s asserted claims are not directed to an abstract idea, we do not reach the issue of *Alice* step 2. *See Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, No. 2015-1415, 2016 WL 362415, at *6 (Fed. Cir. Jan. 20, 2016) (“[C]ourts must determine if the claims at issue are directed to a patent-ineligible concept. If not, the inquiry ends, as the claims are patent-eligible.”) (citation omitted).

¹ Defendants also argue that claims 79 and 83 are merely token post-solution activities which do not transform the allegedly abstract idea into something non-abstract. Dkt. No. 190 at 6 (citing *Bilski v. Kappos*, 561 U.S. 593, 611-12 (2010)). Post-solution activities and components are a consideration for *Alice* step 2. They are, therefore, not relevant here.

B. The '613 Patent

In the Motion, Defendants assert that claims 1, 12, 15, and 16 of the '613 Patent are invalid for being directed to the same core abstract idea of selectively managing communications by (1) assessing a communication, (2) determining a policy to apply to the communication, based in part on user input, and (3) applying the policy to control the communication. Dkt. No. 190 at 1, 11. Claims 12, 15, and 16 are dependent claims that depend from independent claim 1. '613 Patent at claim 12, claim 15, claim 16.

Independent claim 1 of the '613 Patent recites:

1. A wireless end-user device, comprising:

a wireless wide area network (WWAN) modem to communicate data for Internet service activities between the device and at least one WWAN, when configured for and connected to the WWAN;

a wireless local area network (WLAN) modem to communicate data for Internet service activities between the device and at least one WLAN, when configured for and connected to the WLAN;

a non-transient memory to store

a differential traffic control policy list distinguishing between a first one or more applications resident on the device and a second one or more applications and/or services resident on the device, and

a differential traffic control policy applicable to at least some Internet service activities by or on behalf of the first one or more applications;

an interface to allow a user to augment the differential traffic control policy for the first one or more applications but not for the second one or more applications and/or services; and

one or more processors configured to

 classify a wireless network to which the device currently connects in order to communicate data for Internet service activities as at least one of a plurality of network types that the device can connect with,

 classify whether a particular application capable of both interacting with the user in a user interface foreground of the device, and

 at least some Internet service activities when not interacting with the user in the device user interface foreground,

is interacting with the user in the device user interface foreground, and selectively allow or deny one or more Internet service activities by or on behalf of the particular application based on whether or not the particular application is one of the first one or more applications, the differential traffic control policy, including any applicable user augmentation of the differential traffic control policy, and the classifications performed by the one or more process SOS.

'613 Patent at 105: 51-67 – 106: 1-25.

1. *Alice* Step 1

Defendants contend that the '613 Patent embodies an abstract idea for substantially the same reasons that they argued for the '541 Patent. *See* Dkt. No. 190 at 12-13. Plaintiff's counterarguments are, likewise, substantially the same. *See* Dkt. No. 217 at 17-18.

The Court finds that Defendants also misapprehend the '613 Patent. As seen from the claim above, and confirmed by the '613 Patent's specification, claim 1 is concerned with an *end-user device and network* apparatus for maintaining network capacity and improving the performance and operation of wireless end-user devices and the wireless networks on which they communicate. For similar reasons as in Section III.A above, the Court finds that this is not directed to an abstract idea, but instead, is an improvement to a specific network technology. Such improvements to technology itself, rather than mere computerization of a commonplace human activity, are patentable. *See McRO, Inc.*, 837 F.3d 1299.

Accordingly, the Court finds that claims 1, 12, 15, and 16 of the '613 Patent are not directed to an abstract idea.

2. *Alice* Step 2

Because the Court finds that the '613 Patent's asserted claims are not directed to an abstract idea, we do not reach the issue of *Alice* step 2. *See Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, No. 2015-1415, 2016 WL 362415, at *6 (Fed. Cir. Jan. 20, 2016) ("[C]ourts must

determine if the claims at issue are directed to a patent-ineligible concept. If not, the inquiry ends, as the claims are patent-eligible.”) (citation omitted).

IV. CONCLUSION

For the reasons discussed above, the Court recommends the motion be **DENIED**.

A party’s failure to file written objections to the findings, conclusions and recommendations contained in this report within 14 days bars that party from *de novo* review by the District Judge of those findings, conclusions, and recommendations and, except on grounds of plain error, from appellate review of unobjected-to factual findings and legal conclusions accepted and adopted by the district court. FED. R. CIV. P. 72(b)(2); *see also Douglass v. United Servs. Auto. Ass’n*, 79 F.3d 1415, 1428–29 (5th Cir. 1996) (*en banc*). Any objection to this Report and Recommendation must be filed in ECF under the event “Objection to Report and Recommendation [cv, respoth]” or it may not be considered by the District Judge.

SIGNED this 3rd day of June, 2025.



ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE